



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-7450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/532,585	03/22/2000	Jun Kametani	P/2635-43	8649
7590 03/29/2004			EXAMINER	
Steven I. Weisburd Dickstein, Shapiro, Morin & Oshinsky LLP 1177 Avenue of the Americas 41st Floor New York, NY 10036-2714			BOAKYE, ALEXANDER O	
			ART UNIT	PAPER NUMBER
			2667	
			DATE MAILED: 03/29/2004 8	

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/532,585

Applicant(s)

KAMETANI, JUN

Examiner

Alexander Boakye

Art Unit

2667

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 7-23 and 26-31 is/are allowed.
- 6) ☒ Claim(s) 1,2,5 and 24 is/are rejected.
- 7) ☒ Claim(s) 3, 4, 6 and 25 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claim 24 is rejected under 35 U.S.C. 102(e) as being anticipated by Hariguchi et al. (US Patent # 6,665,297).

Regarding claim 24, Hariguchi discloses: searching a table for a flow data based on a search key of a routing packet (column 2, lines 3-5; column 8, lines 45-52;), the flow data including a routing data and the search key (column 8, lines 45-52) ; and transferring the routing packet to a physical output port determined based on a destination address of the routing packet, when the flow data for the search key of the routing packet is registered on the table (column 4, lines 31-45).

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 2, 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over the admitted prior art of Fig. 1 in view of Noriyuki (US Patent # 6,510,159).

Regarding claim 1, the admitted prior art of Fig. 1 discloses a packet switching apparatus comprising: a plurality of lower layer processing units (column 2, line 3, see Fig. 1 block 110) which are connected to physical output ports (column 3, lines 3-5) ,and each of which carries out a process for a data link layer and a physical layer to a packet (column 2, lines 7-10). Furthermore, the admitted prior art of figure 1, teaches transfers of the routing packet to one of the plurality of lower layer processing units based on the routing data (column 2, line 27- column 3, lines 1-3). The admitted prior art of figure 1 does not teach a table storing flow data including a routing data and a search key.

The admitted prior art of figure 1 also fails to disclose a processing unit which searches the flow data from the table based on a search key. However, Hunter discloses a table storing flow data including a routing data and a search key (column 7, lines 19-27; see Figs. 6 and 7). Hunter further teaches a processing unit which searches the flow data from the table based on a search key (column 9, lines 26-51; see Fig. 7). One of ordinary skill in the art would have been motivated to incorporate a table storing flow data including a routing data and a search key such as the one taught by Hunter in the admitted prior art of Fig. 1 in order to improve the table retrieval efficiency. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate a table storing flow data including a routing data and a search key such as the one of Hunter in the packet switching system of the admitted prior art of Fig.

Art Unit: 2667

1, with the motivation being that it provides address of the next hop and packet transfer information, thus enhancing transmission efficiency.

Regarding claim 2, the admitted prior art of figure 1 discloses a packet memory (column 2, lines 2-3) and wherein the processing unit stores the received packet in the packet memory (column 2, lines 17-22). What the admitted prior art of Fig. 1 fails to teach is extracts the search key from the stored packet. However, Hunter discloses extracts the search key from the stored packet (420, Fig. 420 ; column 7, lines 19-24). Thus, one of ordinary skill in the art would have been motivated to incorporate a search key in the table such as the one of Hunter into the admitted prior art of Fig. 1 in order to improve the table retrieval efficiency. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate a search key in the table such as the one of Hunter into the admitted prior art of Figure 1, with the motivation being that it provides address of the next hop and packet transfer information, thus enhancing transmission efficiency.

Regarding claim 5, the admitted prior art of figure 1, teaches that the routing data includes a port number specifying a physical output port (column 3, lines 3-8; the port number is inherent in the physical output port), and that the processing unit selects one of the plurality of lower layer processing units based on the port number (the claimed port number is inherently in the physical output port) of the routing data. The admitted prior art of figure 1, discloses transfers the routing packet to the selected lower layer processing section (column 3, lines 1-3). The admitted prior art differs from the claimed invention in that the admitted prior art of figure 1 does not disclose the claimed search

Art Unit: 2667

key. However, Hunter teaches a search key (column column 7, lines 23-26). One of ordinary skill in the art would have been motivated to incorporate a search key in the address table such as one of Hunter into the admitted prior art of figure 1 in order to improve the table retrieval efficiency. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate a search key such as the one of Hunter into the admitted prior art of figure 1 with the motivation being that it provides packet transfer information, thus enhancing efficiency.

Allowable Subject Matter

3. Claims 3, 4, 6 and 25 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 7-15, 16-23 and 26-31 are allowable.

The following is a statement of reasons for the indication of allowable subject matter: As to claims 7-15 and 16-23, the prior art of record does not teach a processing unit which searches a flow data from the table based on a search key of a routing packet received via one of the plurality of lower layer processing units in a packet memory, when the flow data for the search key of the routing packet is registered on the table and the flow data includes the security data, the search key including a destination address, transfers the security data of the searched flow data as the specific security data, the routing packet as the first packet, and one of the encrypt and decrypt instructions to the security unit, searches another flow data from the table based on a

Art Unit: 2667

search key of the second packet from the security unit as a routing packet, when the another flow data is registered on the table, and selectively transfers the second packet to one of the plurality of lower layer processing units based on the routing data of the searched another flow data.

As to claims 26-31, the prior art of record does not teach selectively generating one of an encrypt and decrypt instruction based on the destination address; carrying out one of an encrypting process or decrypting process to the routing packet based on the security data in response to the generated instruction, when the flow data for the search key of the routing packet is registered on the table and the flow data includes the security data, to produce another routing packet.

Response to Arguments

4. Applicant's arguments with respect to claims 1-31 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alexander Boakye whose telephone number is (703) 308-9554. The examiner can normally be reached on M-F from 8:30am to 6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor Chi Pham, can be reached on (703) 305-4378. The fax number is (703) 872-9306. Any inquiry of a general nature or relating to the status of this application or

Art Unit: 2667

proceeding should be directed to the group receptionist whose telephone number is
(703) 305-4750.

Alexander Boakye

Patent Examiner

AB

3/19/04


CHI PHAM
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600

3/22/04